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APPENDIX IV

LAND USE/LAND COVER	AREAS IN HUC-12 SUBWATERSHEDS (ACRES)				
	0101	0102	0103	0104	0105
Bare Rock/Sand/Clay	199	213	70	64	113
Deciduous Forest	15,240	12,967	13,072	21,012	23,901
Developed Open Space	1,160	1,797	1,517	2,261	4,141
Emergent Herbaceous Wetlands		1	6	6	4
Evergreen Forest	904	1,110	1,012	1,585	685
Grassland/Herbaceous	4,425	6,955	2,795	3,037	4,553
High Intensity Development	1	32	2	6	340
Low Intensity Development	302	803	342	295	2,530
Medium Intensity Development	31	126	32	12	692
Mixed Forest	1,821	1,974	1,857	3,157	2,323
Open Water	1,733	2,294	4,828	8,458	2,076
Pasture/Hay	3,432	6,567	3,726	4,265	3,343
Row Crops	8	60	27	203	9
Shrub/Scrub	81	24	19	224	96
Woody Wetlands	31	8	28	241	32
Total	29,369	34,931	29,334	44,827	44,838

Table A4-1a.

LAND USE/LAND COVER	AREAS IN HUC-12 SUBWATERSHEDS (ACRES)				
	0106	0502	0503	0504	0505
Bare Rock/Sand/Clay	149	61	6	12	80
Deciduous Forest	23,819	15,012	4,150	3,551	15,006
Developed Open Space	3,019	1,203	358	197	1,720
Emergent Herbaceous Wetlands	4				
Evergreen Forest	332	651	500	172	387
Grassland/Herbaceous	2,098	2,988	871	616	3,006
High Intensity Development	162				29
Low Intensity Development	1,398	213	53	135	546
Medium Intensity Development	730	7	2	6	108
Mixed Forest	1,825	1,334	714	416	1,552
Open Water	2,043	379	2		261
Pasture/Hay	1,443	1,191	344	253	1,510
Row Crops	23	1	1	4	
Shrub/Scrub	108	93	23	18	29
Woody Wetlands	53	22		28	37
Total	37,205	23,156	7,025	5,408	24,268

Table A4-1b.

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LAND USE/LAND COVER	AREAS IN HUC-12 SUBWATERSHEDS (ACRES)				
	0506	0507	0702	0801	0802
Bare Rock/Sand/Clay	56	18	2	82	172
Deciduous Forest	6,842	5,328	383	14,916	16,775
Developed Open Space	671	361	30	957	1,401
Evergreen Forest	330	82	30	646	729
Grassland/Herbaceous	1,903	632	54	3,636	5,345
High Intensity Development					5
Low Intensity Development	121	124	10	411	556
Medium Intensity Development	7	14		18	58
Mixed Forest	903	670	48	2,164	1,931
Open Water	1			544	4
Pasture/Hay	749	303	34	1,804	3,242
Row Crops	10		2	3	1
Shrub/Scrub	17	6	1	112	54
Woody Wetlands	3	12	2	20	5
Total	11,615	7,552	595	25,314	30,280

Table A4-1c.

LAND USE/LAND COVER	AREAS IN HUC-12 SUBWATERSHEDS (ACRES)				
	0803	0804	0901	0902	0903
Bare Rock/Sand/Clay	153	62	39	24	145
Deciduous Forest	9,524	12,055	12,653	4,676	7,216
Developed Open Space	729	1,160	502	394	816
Evergreen Forest	581	1,229	315	218	756
Grassland/Herbaceous	2,984	4,360	1,648	2,773	2,773
High Intensity Development	11			5	111
Low Intensity Development	398	367	202	169	548
Medium Intensity Development	175	26	8	17	179
Mixed Forest	1,548	2,107	799	543	1,310
Open Water	20	1,290	5		798
Pasture/Hay	1,509	2,834	1,933	2,290	2,302
Row Crops	5	6			10
Shrub/Scrub	2	21		4	9
Woody Wetlands	19	17	23	6	23
Total	17,656	25,535	18,127	11,121	16,995

Table A4-1d.

Table A4-1a-d. Land Use Distribution in the Upper Clinch River Watershed by HUC-12. Data are from 1992 Multi-Resolution Land Characterization (MRLC) derived by applying a generalized Anderson Level II system to mosaics of Landsat thematic mapper images collected every five years.

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HYDROLOGIC SOIL GROUPS
GROUP A SOILS have low runoff potential and high infiltration rates even when wet. They consist chiefly of sand and gravel and are well to excessively drained.
GROUP B SOILS have moderate infiltration rates when wet and consist chiefly of soils that are moderately deep to deep, moderately to well drained, and moderately coarse to coarse textures.
GROUP C SOILS have low infiltration rates when wet and consist chiefly of soils having a layer that impedes downward movement of water with moderately fine to fine texture.
GROUP D SOILS have high runoff potential, very low infiltration rates, and consist chiefly of clay soils.

Table A4-2. Hydrologic Soil Groups in Tennessee as Described in WCS. Soils are grouped into four hydrologic soil groups that describe a soil's permeability and, therefore, its susceptibility to runoff.

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STATION	HUC-10	AGENCY	NAME	AREA (SQ MILES)	LOW FLOW (CFS)		
					1Q10	7Q10	3Q20
03528300	0601020501	USGS	Big Barren Creek	13.25			
03528400	0601020501	USGS	White Creek	2.68			
03528000	0601020508	USGS	Clinch River	1,474			
03528100	0601020509	USGS	Big Sycamore Creek				

Table A4-3. Historical Streamflow Data Summary Based on Mean Daily Flows in the Upper Clinch River Watershed. USGS, United States Geological Survey; TVA, Tennessee Valley Authority. Additional information may be found at:
<http://nwis.waterdata.usgs.gov/tn/nwis/discharge>

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AGENCY	STATION	LOCATION	HUC-12
TDECWPC	WILLI000.4GR	Williams Creek @ RM 0.4	060102050101
TDECWPC	HOGSK000.5GR	Hogskin Creek @ RM 0.5	060102050101
TDECWPC	BBARR001.8CL	Big Barren Creek @ RM 1.8	060102050102
TDECWPC	CROOK001.2UN	Crooked Creek @ RM 1.2	060102050103
TDECWPC	FALL001.2UN	Fall Creek @ RM 1.2	060102050103
TDECWPC	ECO67F13	White Creek @ RM 2.0	060102050104
TDECDOE	24	White Creek	060102050104
TDECWPC	BIG018.0CA	Big Creek @ RM 18.0	060102050105
TDECWPC	BIG020.0CA	Big Creek @ RM 20.0	060102050105
TDECWPC	BIG017.5CA	Big Creek @ RM 17.5	060102050105
TDECWPC	BIG020.5CA	Big Creek @ RM 20.5	060102050105
TDECWPC	COVE018.0CA	Cove Creek @ RM 18.0	060102050106
TDECWPC	TITUS000.1CA	Titus Creek @ RM 0.1	060102050106
TDECWPC	BRUCE001.2CA	Bruce Creek @ RM 1.2	060102050106
TDECWPC	WAR000.6HK	War Creek @ RM 0.6	060102050503
TDECWPC	BLACK000.1HK	Blackwater Creek @ RM 0.1	060102050504
TDECWPC	BLACK003.4HK	Blackwater Creek @ RM 3.4	060102050504
TDECWPC	BLACK005.7HK	Blackwater Creek @ RM 5.7	060102050504
TDECWPC	CLINC199.0HK	Clinch River @ RM 199.0	060102050505
TDECWPC	MILL001.0HS	Mill Creek @ RM 1.0	060102050505
TDECWPC	BRIER000.1HK	Brier Creek @ RM 0.1	060102050505
TDECWPC	GROCK000.1HK	Greasy Rock Creek @ RM 0.1	060102050505
TDECWPC	MILL000.1HK	Mill Creek @ RM 0.1	060102050505
TDECWPC	SHELB000.1HK	Shelby Creek @ RM 0.1	060102050505
TDECWPC	DUCK000.2HK	Duck Creek @ RM 0.2	060102050505
TDECWPC	TURKE000.3HK	Turkey Creek @ RM 0.3	060102050505
TDECWPC	TURKE000.5HK	Turkey Creek @ RM 0.5	060102050505
TDECWPC	CLINC189.8HK	Clinch River @ RM 189.8	060102050505
TDECWPC	CLINC189.9HK	Clinch River @ RM 189.9	060102050505
TDECWPC	SWEET001.1HS	Sweet Creek @ RM 1.1	060102050506
TDECWPC	RICHA000.7HK	Richardson Creek @ RM 0.7	060102050506
TDECWPC	EFPAN000.1HK	East Fork Panther Creek @ RM 0.1	060102050507
TDECWPC	WFPAN000.1HK	West Fork Panther Creek @ RM 0.1	060102050507
TDECWPC	NFCLI000.1HK	North Fork Clinch River @ RM 0.1	060102050702
TDECWPC	BIG000.1HK	Big Creek @ RM 0.1	060102050801
TDECWPC	SWAN000.5HK	Swan Creek @ RM 0.5	060102050801
TDECWPC	CLINC159.7CL	Clinch River @ RM 159.7	060102050801
TDECWPC	ECO67F17	Big War Creek @ RM 0.6	060102050802
TDECWPC	FGAP003.0HK	Flat Gap Creek @ RM 3.0	060102050802
TDECWPC	LWAR000.1HK	Little War Creek @ RM 0.1	060102050802
TDECWPC	RILEY000.1HK	Riley Creek @ RM 0.1	060102050802

Table A4-4a.

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AGENCY	STATION	LOCATION	HUC-12
TDECWPC	STONY000.1HK	Stony Fork @ RM 0.1	060102050802
TDECWPC	BWAR007.4HK	Big War Creek @ RM 7.4	060102050802
TDECWPC	BWAR013.9HK	Big War Creek @ RM 13.9	060102050802
TDECWPC	JMILL000.1GR	Joe Mill Creek @RM 0.1	060102050803
TDECWPC	INDIA002.3GR	Indian Creek @ RM 2.3	060102050803
TDECWPC	CSPRI000.5GR	Cedar Springs Creek @ RM 0.5	060102050803
TDECWPC	FDEER000.5GR	Forked Deer Creek @ RM 0.5	060102050803
TDECWPC	NOTCH000.1GR	Notchy Creek @ RM 0.1	060102050804
TDECWPC	PCAMP001.1GR	Puncheon Camp Creek @ RM 1.1	060102050804
TDECWPC	DVALL000.6GR	Dutch Valley Creek @ RM 0.6	060102050804
TDECWPC	CRACK000.8GR	Cracker Creek @ RM 0.8	060102050804
TDECWPC	SFSYC000.3CL	South Fork Sycamore Creek @ RM 0.3	060102050901
TDECWPC	LSYCA001.8CL	Little Sycamore Creek @ RM 1.8	060102050902
TDECWPC	BALL000.2CL	Ball Creek @ RM 0.2	060102050903
TDECWPC	BSYCA007.6CL	Big Sycamore Creek @ RM 7.6	060102050903
TDECWPC	NFCLI004.0_VA	North Fork Clinch River @ RM 4.0	Virginia

Table A4-4b.

Table A4-4a-b. STORET Water Quality Monitoring Stations in the Upper Clinch River Watershed. TDECWPC, Tennessee Department of Environment and Conservation Division of Water Pollution Control; UT, Unnamed Tributary.

FACILITY NUMBER	FACILITY NAME	SIC	SIC NAME	MADI	WATERBODY	HUC-12
TN0055352	Sharp's Chapel Elementary School	4952	Sewerage System	Minor	Hunting Creek @ RM 2.0	060102050101
TN0060933	Washburn School	4952	Sewerage System	Minor	Williams Creek @ rm 5.8	060102050101
TN0020532	LaFollette STP	4952	Sewerage System	Major	Big Creek @ RM 17.1	060102050105
TN0026263	Caryville-Jacksboro Utility District	4952	Sewerage System	Minor	Norris lake @ RM 15.9	060102050106
TN0055239	Wynn Habersham School	4952	Sewerage System	Minor	Davis Creek @ RM 0.1	060102050106
TN0026638	Sneedville STP	4952	Sewerage System	Minor	Clinch River @ RM 177.4	060102050505
TN0060704	Sneedville Utility District WTP	4941	Water Supply	Minor	Brier Creek @ RM 1.3 and Clinch River	060102050505
TN0002666	Treadway Water and Sewer STP	4952	Sewerage System	Minor	Flat Gap Creek @ RM 3.0 and Big War Creek @ RM 7.0	060102050802

Table A4-5. NPDES Permittees in the Upper Clinch River Watershed. SIC, Standard Industrial Classification; MADI, Major Discharge Indicator.

FACILITY NUMBER	PERMITEE	WATERBODY	HUC-12
TN0078352	Hallsdale-Powell Norris WTP	Clinch River @ RM 116	060102050103

Table A4-6. Water Treatment Plants in the Upper Clinch River Watershed.

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FACILITY NUMBER	PERMITEE	SIC	SIC NAME	WATERBODY	HUC-12
TN0029262	Tennessee Aggregate Co. (Key Limestone Quarry)	1422	Crushed and Broken Limestone	Cuckle Creek, Big Creek, and Norris Lake	060102050105
TN0063606	Campbell Co. Highway Dept. (Area #1)	1422	Crushed and Broken Limestone	Cuckle Creek	060102050105
TN0053848	New River Processing, Inc. (Tipple #2)	1221	Bituminous Coal and Lignite Surface Mining	Cove Creek	060102050106
TN0066168	Caryville Stone, LLC (Quarry/Processing Facility)	1422	Crushed and Broken Limestone	UT to Cove Creek	060102050106
TN0071749	Tennessee Valley Authority (Flatwoods Mine Area)	1221	Bituminous Coal and Lignite Surface Mining	Bruce Creek	060102050106
TN0076180	U.S. Coal, Incorporated (Deep Mine 10)	1222	Coal Mining, Bituminous, Underground	UT to Adkins Branch	060102050106
TN0072702	G and M Enterprises, Inc. (Sand Quarry #1)	1442	Construction Sand and Gravel	Owens Branch, Reynolds Church House Hollow	060102050802
TN0060127	Mossy Creek Mining, LLC (Clinch Valley Mine)	1031	Lead and Zinc Ore	Joe Mill Creek	060102050803

Table A4-7. Active Permitted Mining Sites in the Upper Clinch River Watershed. SIC, Standard Industrial Classification; UT, Unnamed Tributary.

FACILITY NUMBER	FACILITY NAME	WATERBODY	HUC-12
TNG110057	C & C Concrete Products	Big Creek @ RM 13	060102050105
TNG110095	Dixie Concrete Company	Hunter and Norris Dam	060102050105
TNG110193	Tri-Cities Concrete Co.	Greasy Rock Creek	060102050505

Table A4-8. Ready Mix Concrete Plants in the Upper Clinch River Watershed.

LOG NUMBER	COUNTY	DESCRIPTION	WATERBODY	HUC-12
NRS02.165	Union	Boat Ramp and Road Crossing	Lost Creek	060102050104
NRS03.307	Campbell	Culvert Replacement	Cuckle Creek	060102050105
NRS01.218	Campbell	Bank Stabilization	Eagle Bluff Springs	060102050106
NRS02.306	Campbell	Wetland Alteration	UT to Titus Creek	060102050106
NRS01.105	Hancock	Bridge replacement	Briar Creek	060102050505
NRS02.448	Hancock	Livestock Watering Pond	UT to Flea Creek	060102050505
NRS04.039	Hancock	Install Ductile Iron Pipe	Clinch River	060102050505
NRS02.429	Hancock	Livestock Watering Pond	UT to Little War Creek	060102050802

Table A4-9. Individual ARAP Permits Issued January 2000 Through June 2004 in the Upper Clinch River Watershed. UT, Unnamed Tributary.

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FACILITY NUMBER	FACILITY NAME	SECTOR	RECEIVING STREAM	AREA*	HUC-12
TNR055986	TNT Auto Parts	M	UT to Dotson Creek	7	060102050103
TNR051561	Continental Camper Company	AB	Ollis Creek and Big Creek	1.3	060102050105
TNR053160	Caryville	D	Unnamed Tributary	4.5	060102050105
TNR053178	LaFollette	D	Ditch	1.6	060102050105
TNR053448	Campbell County Airport	S	Not Reported	0	060102050105
TNR053788	Volunteer Fabricators, Inc.	W	Brier Creek	4	060102050505
TNR054265	BSH Home Appliances Corp.	AA	Cockle Creek	5	060102050105
TNR055895	Austin Powder Company	C, P	UT to Big Creek	115	060102050105
TNR050259	Clinch River Casting, Inc.	F	Cove Creek	6	060102050106
TNR051700	Advance Foods, Incorporated	U	Cove Lake	13	060102050106
TNR054434	Profile Solutions Industries	Y	Norris Reservoir	4.64	060102050106
TNR054593	Creative Tubes	F	Big Creek	0.7	060102050106
TNR055942	International Paper Corporation	A	UT to Titus Creek	103.5	060102050106

Table A4-10. Active Permitted TMSP Facilities in the Upper Clinch River Watershed. Area, acres of property associated with industrial activity; UT, Unnamed Tributary. Sector details may be found in Table A4-11.

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SECTOR	TMSP SECTOR NAME
A	Timber Products Facilities
AA	Facilities That Manufacture Metal Products including Jewelry, Silverware and Plated Ware
AB	Facilities That Manufacture Transportation Equipment, Industrial or Commercial Machinery
AC	Facilities That Manufacture Electronic and Electrical Equipment and Components, Photographic and Optical Goods
AD	Facilities That Are Not Covered Under Sectors A Thru AC (Monitoring Required)
AE	Facilities That Are Not Covered Under Sectors A Thru AC (Monitoring Not Required)
B	Paper and Allied Products Manufacturing Facilities
C	Chemical and Allied Products Manufacturing Facilities
D	Asphalt Paving, Roofing Materials, and Lubricant Manufacturing Facilities
E	Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing Facilities
F	Primary Metals Facilities
G	Metal Mines (Ore Mining and Dressing) (RESERVED)
H	Inactive Coal Mines and Inactive Coal Mining-Related Facilities
I	Oil or Gas Extraction Facilities
J	Construction Sand and Gravel Mining and Processing and Dimension Stone Mining and Quarrying Facilities
K	Hazardous Waste Treatment Storage or Disposal Facilities
L	Landfills and Land Application Sites
M	Automobile Salvage Yards
N	Scrap Recycling and Waste and Recycling Facilities
O	Steam Electric Power Generating Facilities
P	Vehicle Maintenance or Equipment Cleaning areas at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, the United States Postal Service, or Railroad Transportation Facilities
Q	Vehicle Maintenance Areas and Equipment Cleaning Areas of Water Transportation Facilities
R	Ship or Boat Building and Repair Yards
S	Vehicle Maintenance Areas, Equipment Cleaning Areas or From Airport Deicing Operations located at Air Transportation Facilities
T	Wastewater Treatment Works
U	Food and Kindred Products Facilities
V	Textile Mills, Apparel and other Fabric Product Manufacturing Facilities
W	Furniture and Fixture Manufacturing Facilities
X	Printing and Platemaking Facilities
Y	Rubber and Miscellaneous Plastic Product Manufacturing Facilities
Z	Leather Tanning and Finishing Facilities

Table A4-11. TMSP Sectors and Descriptions.